

# DOCUMENT RESUME

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## ABSTRACT

Intended for the parents (mothers) of children with behavior problems in a diagnostic intake preschool, the training manual instructs parents in methods of observing and interacting with the children. Parents are instructed in classroom observation techniques involving the collection and recording of data on rating sheets. Detailed are how to rate appropriate/inappropriate behavior each minute on the minute, and how to take 30-second samples on an individual mother or child for a 20-minute duration. Types of data gathered include mother's attention to child behavior, child's time on task, peer interaction, language sample, and specific disruptive behaviors. Objective sheets list activities to be completed by parent at each step in the training, and series of questions periodically test the parent's mastery of the data gathering and recording techniques. (KW)

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PARENT TRAINING MANUAL EMPHASIZING DATA SYSTEMS  
FOR MOTHERS AND CHILDREN IN A DIAGNOSTIC PRESCHOOL

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Regional Intervention Program for Parents and Preschoolers  
Grant No. OEG-0-9-520320-4535 (618)  
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#### ACKNOWLEDGEMENTS

As is the case with most of the procedures and instructional systems of the Regional Intervention Program, this manual synthesizes and adapts the work of other investigators for large scale application to service delivery systems. The authors are especially indebted to Todd R. Risley and his associates, particularly Larry A. Doke, for providing the Pla-Check and the Speech Check and to K. Eileen Allen and her associates for providing some other measurement procedures. Any errors in application are the responsibility of the present authors. Credit for the original development belongs to the related efforts of researchers at the Universities of Illinois, Kansas, Oregon, and Washington.

OBJECTIVES FOR MOTHERS AND CHILDREN IN  
INTAKE PRESCHOOL

ALL CHILDREN WHO ENTER THE PROGRAM ARE PLACED IN THE INTAKE PRESCHOOL. HERE THE CHILDREN LEARN APPROPRIATE WAYS OF BEHAVING WITHIN A GROUP OF CHILDREN.

ALL MOTHERS WHO ENTER THE PROGRAM ARE ALSO ASSIGNED TO THE INTAKE PRESCHOOL. HERE THEY OBSERVE THE CLASSROOM TEACHERS, TAKE DATA (A WAY TO MEASURE HOW THE CHILD IS DOING) AND INTERACT WITH THE CHILDREN, AS RECORDED ON THEIR OBJECTIVE SHEET.

THE OBJECTIVE SHEET FOR MOTHERS IN THE INTAKE PRESCHOOL LISTS THE ACTIVITIES TO BE COMPLETED AND LETS HER KNOW EXACTLY WHAT ACTIVITIES SHE NEEDS TO LEARN AND WHEN SHE HAS FINISHED EACH. WHEN SHE HAS COMPLETED THE REQUIRED OBJECTIVES, SHE WILL BE MOVED TO ANOTHER ASSIGNMENT IN THE PROJECT. AT THAT TIME, HER CHILD WILL BE TRANSFERRED TO ANOTHER PRESCHOOL.

CLASSROOM EXPERIENCE GIVES EACH MOTHER A CHANCE TO APPLY THE NEWLY LEARNED TECHNIQUES OF TODDLER MANAGEMENT TO A GROUP OF CHILDREN, IN ADDITION TO INCREASING HER AWARENESS OF THE KINDS OF ACTIVITIES THAT ARE APPROPRIATE FOR PRESCHOOL CHILDREN AND THE KINDS OF THINGS SHE CAN DO WITH HER OWN CHILDREN AT HOME.

THE FOLLOWING IS A DESCRIPTION OF YOUR AND YOUR CHILD'S EXPERIENCES IN THE INTAKE PRESCHOOL.

#### Outlier Management Mothers:

During baseline you will keep your child with you at all times. After your session, you and your child will meet with your case manager for any instructions before you leave.

On the first day of intervention you will go into the Intake Preschool classroom with your child for thirty minutes. This is to give your child a chance to look around his new preschool with "his mother" with him, as well as to give RIP staff a chance to observe you and your child together in a group situation. We hope that this thirty-minute exposure to the classroom will show you the problems and complexities of handling a group of children, but will be short enough not to stress you or make you feel "put down".

After the thirty-minute classroom experience you will begin the next steps of the training sequence, proceeding through the items as quickly as you can. The data manager will enter the date of completion of each item on your objectives sheet and the chart on the wall outside the intake preschool door.

As you read the Training Track on the next page, you will notice that you will be learning to take several types of data. First you will learn to rate appropriate/inappropriate behavior. This will be the "basic component"; that is, you will rate appropriate/inappropriate behavior each minute-on the minute. During the other half of the minute, different thirty-second samples will be taken on an individual child or mother for a twenty-minute duration - either data on mother's attention to child behavior, or a child's time on task, or peer interaction, or a language sample, or a specific disruptive ("Z") behavior. You will understand what we mean as you proceed through the Training Track.

#### Individual Tutoring Mothers:

On the first day, you will go into the Intake Preschool with your child for a minimum of thirty minutes. This is to give your child a chance to look around his new preschool with "his mother" with him, as well as to give RIP staff a chance to observe you and your child together in a group situation. We hope that this thirty-minute exposure to the classroom will show you the problems and complexities of handling a group of children but will be short enough not to stress you or make you feel "put down".

After the thirty-minute classroom experience, you will begin the next step of the training sequence proceeding through the items as quickly as you can. The data manager will enter the date of completion of each item on the chart on the wall outside the Intake Preschool door and on your objective sheet.

As you read the Training Track on the next page, you will notice that you will be learning to take several types of data. First you will learn to rate appropriate/inappropriate behavior. This will be the "basic component"; that is, you will rate appropriate/inappropriate behavior each minute-on the minute. During the other half of the minute, different thirty-second samples will be taken on an individual child or mother for a twenty-minute duration - either data on mother's attention to child behavior, or a child's time on task, or peer interaction, or a language sample, or a specific disruptive ("Z") behavior. You will understand what we mean as you proceed through the Training Track.

TODDLER MANAGEMENT MOTHERS AND INDIVIDUAL TUTORING MOTHERS  
TRAINING TRACK

1. Go into the classroom with your child the first day for a minimum of thirty minutes.  
The data manager will enter the date by your name on the wall chart.
2. Observe the classroom. The intake data manager will explain what is happening in the classroom and answer any questions you may have.
3. Read the Data Manual - Part I: Appropriate and Inappropriate Behavior Data
4. Write the answers to the questions at the end of Part I. Show your answers to the data manager and she will check them for you. When you correctly answer 90% of the questions, begin rating with a reliable rater.
5. Achieve 90% agreement with a rater trained on appropriate/inappropriate behavior data.  
Show your achievement to the data manager and she will enter the date 90% agreement was achieved on the chart on the wall and on your objective sheet.
6. Read the Data Manual - Part II: Mother Attention to Children in a Group Setting.
7. Write the answers to the questions at the end of Part II. Show your answers to the data manager and she will check them for you. When you correctly answer 90% of the questions, begin rating with a reliable rater.
8. Achieve 90% agreement with a rater trained on mother attention to child behavior.  
Again, show your achievement to the data manager and she will enter the date of achievement on the wall chart and on your objective sheet.
9. Read the Data Manual - Part III: Activity Changes.
10. Write the answers to the questions at the end of Part III. Show your answers to the data manager and she will check them for you. When you correctly answer 90% of the questions, begin rating with a reliable rater.
11. Achieve 90% agreement on activity change data with a trained rater. Show your achievement to the data manager and she will enter the date of achievement on the wall chart and on your objective sheet.
12. Read the Data Manual - Part IV: Speech Samples.



13. Write the answers to the questions at the end of Part IV. Show your answers to the data manager and she will check them for you. When you correctly answer 90% of the questions, begin rating with a reliable rater.
14. Achieve 90% agreement with a rater trained on speech samples. Show your achievement to the data manager and she will enter the date of achievement on the wall chart and on your objective sheet.
15. Read the Data Manual - Part V: Peer Interaction.
16. Write the answers to the questions at the end of Part V. Show your answers to the data manager and she will check them for you. When you correctly answer 90% of the questions, begin rating with a reliable rater.
17. Achieve 90% agreement with a rater trained on peer interaction. Show your achievement to the data manager and she will enter the date of achievement on the wall chart and on your objective sheet.
18. Go into the classroom. When the data show that you:
  - a) attend to inappropriate behavior no more than one time in twenty minutes
  - b) and you can talk to children when they are appropriate, reinforcing their appropriate play (talking about what they are playing with, how long they are playing, how nicely they are playing, creating situations in which they can participate or respond, etc).

you have completed the Training Track. The classroom teacher will enter this date on the chart on the wall. At this time your child, if his objectives chart has been completed, will be transferred to another classroom in RIP and you will be advanced to a "specialist" position in one of the preschools - helping in the classroom, taking data, preparing art materials, training other parents in the techniques you have been learning, etc. - or elsewhere in the program.

**OBJECTIVE:** The personnel manager will advance a mother to a specialist position in the program the day after she completes the activities for all mothers in the Intake Preschool. The classroom teacher will transfer the mother's child to another classroom in RIP (provided he, too, has completed his objectives) the day after mother completes the objectives for mothers in the Intake Preschool.

# OBJECTIVES FOR MOTHERS IN INTAKE PRESCHOOL

## Activities:

\_\_\_\_\_ The data manager enters the date the mother achieves 90% agreement with another rater who has achieved reliability on appropriate/inappropriate data on the wall chart and in the column to the left.

\_\_\_\_\_ The data manager enters the date the mother achieves 90% agreement with another rater who has achieved reliability on mother attention to child behavior in a group setting on the wall chart and in the column to the left.

\_\_\_\_\_ The data manager enters the date the mother achieves 90% reliability on speech samples on the wall chart and in the column to the left.

\_\_\_\_\_ The data manager enters the date the mother achieves 90% reliability on peer interaction on the wall chart and in the column to the left.

\_\_\_\_\_ The data manager enters the date the mother interacts with the children in the classroom and attends to inappropriate behavior no more than 1 time in twenty minutes on the wall chart and in the column to the left.

\_\_\_\_\_ The data manager enters the date the mother verbalizes (to an appropriate child or children) in at least 50% of the intervals sampled during twenty minutes on the wall chart and in the column at the left.

\_\_\_\_\_ The day after the mother completes activities 1-6, the personnel manager will enter in the column to the left the date the assignments listed below are made.

Position \_\_\_\_\_

Position \_\_\_\_\_

CLIENT:

AGE:

SEX:

PARENTS:

BIRTHDATE:

ADDRESS:

DATE OF ADMISSION:

DATE TRANSFERRED TO PRESCHOOL:

(I, II, III, IV) Circle One

FOR CHILD IN INTAKE PRESCHOOL

OBJECTIVE: Child will be transferred to another classroom in RIP upon completion of the following activities, as indicated by the entry of the date beside each activity by the classroom teacher when the activity has been completed.

Activities:

\_\_\_\_\_ The classroom teacher enters in the column to the left and on the wall chart the date that the graph for appropriate/inappropriate behavior shows that the child has been 85% or above appropriate for three consecutive days.

\_\_\_\_\_ The classroom teacher enters in the column to the left and on the wall chart the date a speech graph with the first speech check is placed in the child's work folder.

\_\_\_\_\_ The classroom teacher enters the date the on-task graph has been placed in the work folder and the average number of minutes the child is on task and the percent of time wandering are listed below.  
Average number of minutes on task at first activity check \_\_\_\_\_  
Percent of time wandering \_\_\_\_\_.

\_\_\_\_\_ The classroom teacher enters the date the peer interaction graph has been placed on the work folder.

\_\_\_\_\_ The classroom teacher enters the date the classroom report (written by the intake preschool teacher) is given to the classroom teacher to whom a child is transferred.

\_\_\_\_\_ The classroom teacher enters the date the mother completes her objectives.

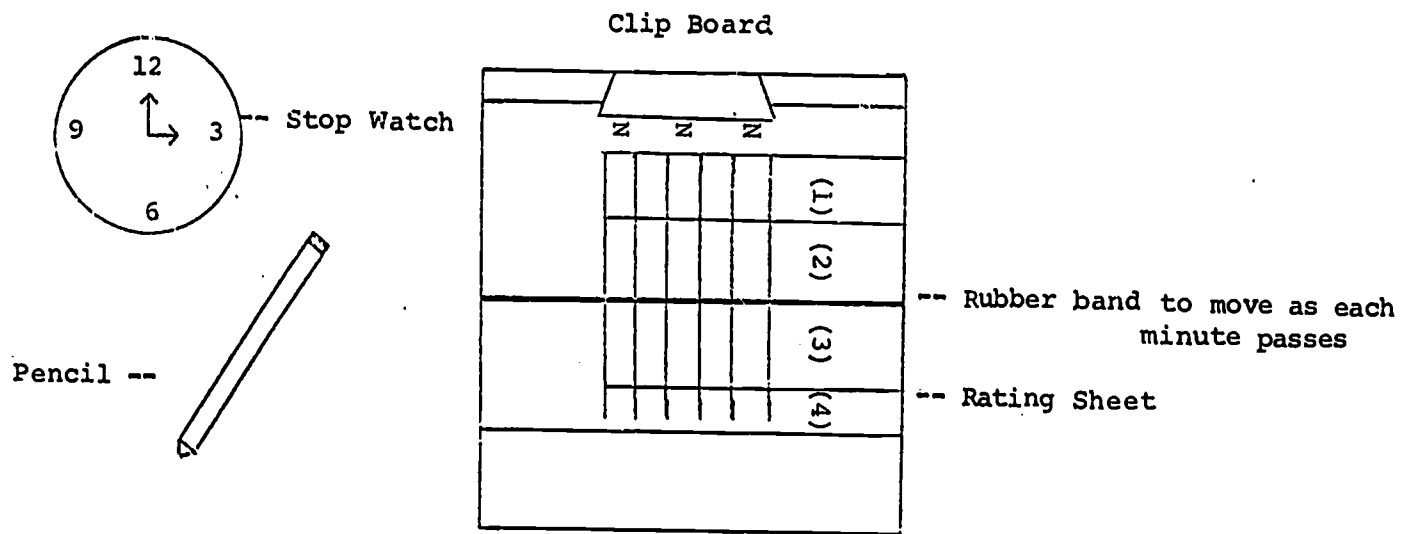
\_\_\_\_\_ Preschool to which the child is transferred \_\_\_\_\_.

PART I

APPROPRIATE/INAPPROPRIATE CHILD BEHAVIOR

Materials needed for rating:

1. Rating paper like the one on the last page of this section.
2. Pencil
3. Stop Watch
4. Clip Board
5. Marker or rubber band to help you keep your place while rating, or at any rate, some method of marking each minute as it passes to help you keep your place.



Helpful Hints:

Our data are not acceptable unless we have evidence of the extent of agreement between independent raters. "Independent" means that you are in no way influenced by what the other rater is doing.

When observing from the observation booth, wear earphones so you cannot hear the other rater or observers. Sit in a chair on either side of the divider at the observation window so you cannot see the other rater. Never change your scores after you see the other rater's sheets.

When observing from the classroom:

1. Avoid conversation with children. Children will occasionally ask questions as "What is your name?", "What are you doing?", "Why did you come here?". A good answer is, "I'm working".
2. Avoid any action which is likely to attract a child's attention, (i.e. laughing about them, smiling at them, verbally contacting them or meeting their eyes).
3. Avoid playing with children. If any child should attempt to draw you into his play, simply keep busy with your work.

4. Avoid conversing with other adults while you are observing: sitting apart from others makes for less conversation.
5. When necessary to observe in the classroom rather than in the booth, stand or sit in a chair against the wall at least 6 feet away from other raters. Try not to notice what they are doing. Sometimes, when fulfilling a requirement in observing an individual child, it may be necessary to follow him as he moves from place to place. When this is true, be as inconspicuous as possible and be prepared for times when, for justifiable reasons, the teacher will ask you to refrain.
6. Have no more than pencil, stopwatch and clipboard in your hands. (that means no coffee, cokes, or cigarettes, etc.)

#### What to do

1. Read the paper on how to take data
2. Gather the materials needed
3. Rate according to directions given
4. Take data on all the children each minute with your agreement with another rater being checked by a variety of procedures. Most days you will be assigned to Preschool from 9:00-10:30 or 10:30-12:00 and assigned to another module the other part of the morning. Therefore, you will rate each minute for one half the classroom period. You will rate appropriate/inappropriate behavior each minute on the minute. During the remainder of the minute (from the 20-50 second interval), you will, at the same time, take a twenty-minute sample on behaviors specific to one child or one mother. For instance, you might take data on a child's peer interaction or time on task, or a mother's interaction with a group of children.

#### Directions

1. Fill out the information on the rating sheet. (See sample sheet attached at the end of this paper).
  - a) Names of all the children in the room
  - b) Date
  - c) Your name (observer)
  - d) Time you begin rating - time you end rating
  - e) The activity in which the children are engaged when you begin (The schedule of activities is written on the board.)
2. Get ready
3. Start the stop watch

4. Watch the children. When the minute hand goes around once and exactly as it passes over the 60 second mark, glance at each child, from left side of the room to the right side and indicate by a check mark by the name, in the column marked one, any child who is inappropriate. (No mark by the name means they are behaving appropriately). When the minute hand goes around again and passes over the 60 second mark, indicate by the child's name in the column marked two, any child who is inappropriate at the instant the hand passes 60. Continue to do the same each minute.
5. Attendance for any period is defined as being in the preschool room (Exception: outside play period or gym period attendance is being in the outside play area or gym).
6. If a child leaves the room indicate by marking a ( ] ) on the appropriate minute column by that child's name.

Example:

	1	2	3	4	5	6	7
Jim						]	
John							
Joe							
Jack	[						

Jim left room after the five-minute check

Jim comes back to room (after the six-minute check; before 7-minute check)

Child enters room for first time (after the first minute check; before second minute check)

7. If a child comes into the room after you begin rating, indicate when he enters the room by marking a bracket ( [ ) in the appropriate column by that child's name. (See example above). If his name was not on the list add it. The brackets enclose the period the child was present in the room.
8. An M by the child's name indicates the child's mother was present in the room. (M) in the appropriate minute column indicates that the mother left during that interval. If a child's mother comes in the room after rating begins, indicate the mother's entry by making an M in the minute column in which she enters.

Example:

	1	2	3	4	5
Jim	M			(M)	
John					M

9. Activities change on the bell or on the teacher's s<sup>D</sup>

#### What Behaviors are Appropriate

Generally appropriate activities:

- a) asking for materials

- b) Putting away materials
- c) Appropriate use of materials
- d) Pushing chair up to table or to group area
- e) Looking at teacher when teacher is talking or demonstrating
- f) Responding when called upon by teacher
- g) Watching another child called upon by teacher
- h) Moving toward trash can with used paper cup, napkin or trash
- i) Taking food from teacher or tray (snack time)
- j) Chewing (snack time)
- k) Watching another child being served (without talking)
- l) Carrying out explicit directions from teacher (if directions specify movement or verbal responses)

The following are examples of these categories. If the examples don't seem to cover what the child is doing, score by the above categories.

I. Appropriate behavior during opening exercise, story time, closing exercise:

- 1. Child is seated in chair unless response to teacher's  $S^D$  requires otherwise and
- 2. Child is looking at teacher, responding to teacher's  $S^D$ , looking at another child who is responding to teacher's  $S^D$  ( $S^D$  - any cue or stimulus which marks time or place of reinforcement) or reinforcer and
- 3. Sitting quietly without disruptive behavior.

II. Appropriate activities during Activity Time:

1. Child is looking at:

paper	nesting cups
puzzle	balls
blocks	TV
oneself (dressed up)	balloons
beads	fish
Teacher demonstration - student demonstration	books & magazines
pegs	stackers

2. Or handling (this includes taking down and putting up)

sand toys	pegs	paper		
pencils	brooms	stackers	faucets	puzzles



blocks  
beads  
cups and saucers  
dishes  
dolls  
telephones  
iron  
ironing board  
pounding bench

ropes  
boards  
dough  
food (artificial and real)  
balls  
trucks, cars, airplanes, trains, boats (toy vehicles)  
pots and pans  
sand

nesting toys  
water toys  
paper towels

3. Or moving (with or on)

climbing frames  
large boxes  
sliding board  
ladder  
hobby horse  
wagons  
balls  
boat (or just sitting)

4. Or looking at teacher and/or responding to teacher's S<sup>D</sup>, looking at consumable reinforcer.

III. Appropriate activities during Clean-up Time and transition times (S<sup>D</sup> to leave one activity has been given, but before a new activity has begun):

1. Putting toys away
2. or going to or coming from bathroom
3. or washing, drying hands
4. or going to designated group time activity area

NOTE: A child becomes inappropriate once the new task has actually begun or if he shows opposition to making the change.

IV. Group time:

1. Child is within three feet of at least one peer or is vocalizing to a peer or looking at a peer
2. Or child is looking at or handling material designated by the teacher as the group time activity or activities
3. Or child is engaged in some activity

V. Appropriate activities during outside play or gym period:

1. Child is moving with or on:

climbing frames

large box  
sliding board  
ladder  
hobby horse  
wagons  
balls  
boat (or just sitting)

2. Or child is running, jumping, walking, or otherwise locomoting
3. Or child is talking to or looking at teacher or responding to teacher's S<sup>D</sup>
4. Or child is touching, looking at, vocalizing to another peer.

VI. Appropriate activities during Art Time:

Child is looking at and/or handling appropriately paper, paste, glue, paint, scissors, paint brushes, etc. Child is looking at teacher, vocalizing to teacher, or responding to teacher's S<sup>D</sup>.

VII. Appropriate activities in bathroom:

eliminating	asking for help
washing and drying	throwing cups or paper towels in trash can
filling paper cups	pulling down pants and pulling back up
drinking from cups	

VIII. Appropriate activities at snack

1. Sitting at table AND
  2. Taking food from tray
- C chewing  
P picking up food off place  
F filling cup  
H holding cup  
D drinking  
A asking for cookies and/or juice

WHAT BEHAVIORS ARE INAPPROPRIATE

Criteria for Opening Exercise, Story Time and Closing Exercise:

A child is off task if he is:

1. not seated (unless otherwise directed by teacher)
2. not sitting quietly; disrupting the attention of another child
3. crying (audible sounds) or screaming

#### Criteria for Activity Time, Clean-Up

A child is off task if he is:

1. ignoring teacher's questions or commands- does not respond to teacher's  $S^D$
2. kicking, shoving, pinching, slapping, striking with object, throwing object which hits another person, poking with object, biting, pulling hair, touching, patting, etc.
3. grabbing objects or work, destroying another's property, throwing objects at another person without hitting them.
4. holding an object in one's hand without "activity" with the object

#### Criteria for Art Time

A child is off task if he:

1. is not handling appropriately paper, paste, glue, paint, scissors, paint brushes, etc.
2. is not responding to teacher's  $S^D$   
(Period is over when child completes his work and activity time criteria then applies)

#### Criteria for Outside Play or Gym Period

A child is off task if he is not doing one of the following:

1. moving with or on  
climbing frames  
large boxes  
sliding board  
ladder  
hobby horse  
wagons  
balls  
boat (or just sitting)
2. or running, jumping, walking, or otherwise locomoting
3. or talking to or looking at teacher or responding to teacher's  $S^D$
4. or touching, looking at, vocalizing to another peer

What to do with the data:

Look at the rating sheet:

1. In the column marked ( # intervals inappropriate) count the total number of checks by that child's name and enter the number - (for example, 10)
2. In the column marked (total number intervals) enter the total for each child by counting the number of intervals each child was in the room (the number of blanks plus the number of checks equals total # intervals). The number may be different for each child.

3. In the column marked (# inappropriate/total number of intervals) write: The number of inappropriate intervals on the top and the total number of intervals on the bottom. (For example, 10/24)
4. To find the percent of inappropriate behavior, divide the bottom number into the top number and multiply by 100.

Example:  
10/24

$$24 \overline{) 10.000} = .42$$

$$\begin{array}{r} .416 \\ 24 \overline{) 10.000} \\ \underline{96} \phantom{00} \\ 40 \phantom{00} \\ \underline{24} \phantom{00} \\ 160 \phantom{00} \\ \underline{144} \phantom{00} \end{array}$$

(Rule: If the third number is 5 or larger, make the second number one larger; if it is less than 5, that is 0, 1, 2, 3 or 4, drop the third number.

$$.42 \times 100 = 42\%$$

The number should be a red dot on the graph).

5. To find the % appropriate behavior, subtract the % inappropriate behavior from 100. For example:

$$\begin{array}{r} 100 \\ -42 \\ \hline 58\% \end{array} \text{ appropriate behavior}$$

(this number should be a blue dot on the graph)

6. Graph no data point for a child if he has less than 10 intervals of data:

When there are two raters follow the format below:

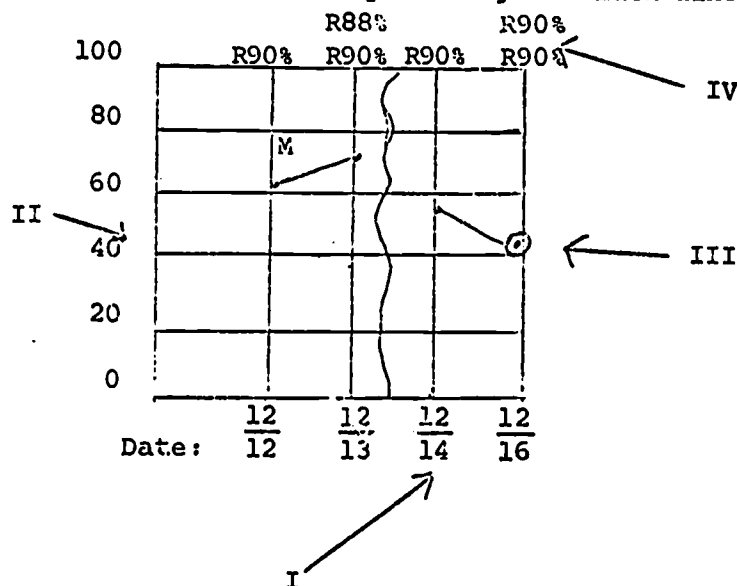
CHILD'S BEHAVIOR			
	Rater #1	Rater #2	
Total intervals of inappropriate behavior			
Use Rater #1's Total - Converted to %- (divide the total number of intervals into number of inappropriate intervals x100)			Graph red dot
% Appropriate Behavior Above subtracted from 100	100 —		Graph blue dot

Rater #1 will be the rater who just happens to be sitting in the chair marked Rater #1. Agreement of Rater #1 with Rater #2 will assure us that Rater #1 is indeed reliable.

#### How to Graph the Data Points:

The points across the bottom indicate the days. Each 5th line means a day. Write in the date. If the child is absent, do not skip points for the days he is absent.

Do not skip points for Saturday or Sunday. The points up the left side of the graph indicate the percentages. Each line represents 2%.



To graph 42% inappropriate behavior for 12/16:

- I. Write in the date at the appropriate line
- II. Go up the line until you get to 42%
- III. Put a red dot at the intersection of the date and the % inappropriate behavior.
- IV. Record the % reliability (rater agreement) above each data point. If more than one set of raters takes data on a child, each set will record the % reliability on each child's daily graph above the daily data point.

Remember: Red dots for % inappropriate behavior

Blue dots for % appropriate behavior

{ Squiggle lines indicate program changes

M by points on the graph indicate the child's mother was present

#### How to Calculate Rater Agreement:

$$\frac{\text{Total number of agreements}}{\text{Total number of agreements and disagreements}} \times 100$$

Divide bottom number into top number and convert to % by multiplying by 100

NOTE: % Rater agreement will be recorded in two places:

- 1) on each child's graph above the daily data point
- 2) on rater sheet itself

How to Calculate Rater Disagreements:

Number of disagreements on appropriate behavior = \_\_\_\_\_

Number of disagreements on inappropriate behavior = \_\_\_\_\_

Total disagreements = add above

If rater agreement goes below 85% at any time it is checked, the resource person will analyze the performance problem.

Example:

Total number agreements = 92

Total number agreements and disagreements  $92 + 5 = 97$

$$\begin{array}{rcl} 92/97 & = & 97 \overline{) 92.00} \quad \times 100 = 95\% \\ & & \underline{87 \ 3} \\ & & 4 \ 70 \end{array}$$

What this information tells you:

Increases in % appropriate behavior on the graph indicate the program the teacher is using is an effective way of reducing inappropriate behavior. If the % appropriate behavior is remaining at the same level or decreasing, a new program needs to be implemented.

The rater is the first to notice these behavior changes and should point out these changes to the teacher.

Also, if any child has a particular behavior that is particularly disruptive (for example; crying, hitting, biting, etc.) the rater is one of the first to notice this. By conveying the data to the teacher, the rater can raise the question of whether specific programs need to be implemented to focus on these behaviors. The occurrence of one of these behaviors can be indicated by a special code on the rating sheet - a "Z" - each time this behavior occurs as the rater is taking appropriate/inappropriate data.

When several "Z's" are noted on a rating sheet, a specific program may need to be implemented and, therefore, it may become necessary to take a 20-minute sample on

a child from the 20-50 second intervals of each minute for twenty minutes as a rater continues to rate appropriate/inappropriate data on all the children.

An analysis of the data can measure the participation of the children in planned activities and thereby permit a comparison of activity implementation as well as the detection of weak points in the programs.

WHITE: Peggy Hester										TIME: 9:45										RELIABILITY: 90%												
Activities: Activity Times										Clean - UP																						
ME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25							
M	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						
M																										✓						
M					✓	✓																										
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						



PROBE: PART I

Check the correct answer:

1. On how many children is appropriate/inappropriate data taken?

- ☐ one
- ☐ two
- ☐ all

2. When is appropriate/inappropriate data taken?

- ☐ every 30 seconds
- ☐ on the minute-each minute
- ☐ all the time

3. Place a check in the correct minute column by the child if he is:

- ☐ appropriate
- ☐ inappropriate

4. When appropriate/inappropriate data is taken, all raters should rate the children by sweeping:

- ☐ left to right
- ☐ right to left
- ☐ no order

5. On the sample rating sheet, indicate the following:

As the minute hand sweeps past the 60-second mark the first time:

- a) Sue is sitting in the chair working a puzzle
- b) Nancy is crying
- c) Ruth is looking at the teacher who is showing her how to make a ball out of play-doh
- d) Beth is standing

As the minute hand sweeps past the 60-second mark, the second minute:

- a) Sue is sitting in the chair working a puzzle
- b) Nancy is crying
- c) Ruth is making a ball out of play-doh
- d) Beth is climbing in the rocky boat

Linda enters the room with her mother before the 3rd minute check

At the ten minute check:

- a) Sue is putting her puzzle away
- b) Nancy is rocking in the boat
- c) Ruth is pulling doll from Beth
- d) Beth is holding a doll
- e) Linda is waving fingers in front of her eyes watching the light

Before the 11-minute check, but after the 10-minute check, Linda and her mother leave the room.

If after a 25-minute sample of appropriate/inappropriate data, we had five intervals of inappropriate behavior, what % of the time was she inappropriate?

What % of the time was she appropriate?

What does being an "independent" rater mean?

Where is the % rater agreement recorded?

1. \_\_\_\_\_
2. \_\_\_\_\_

## PART II

### MOTHER ATTENTION TO CHILDREN IN A GROUP SETTING

You may have noticed that you have a lot of idle time between intervals when rating appropriate/inappropriate behavior on the children in the classroom. Needless to say, we have another important contribution to the program for you to make - there will be a variety of behaviors which you can rate, as you continue your rating on appropriate/inappropriate behavior. The data will be taken on one child or one mother during the 20-50 second intervals of each minute for twenty minutes. One such kind of data is "mother attention to children in a group setting." Other data include "time on task," "peer interaction," "language samples," or "Z - specific disruptive behaviors."

#### What to Do

The purpose of these data is to show us how a mother interacts with a group of children - whether or not she does interact if she does, whether she attends appropriate or inappropriate behavior. We are measuring the progress of each parent toward the following objectives:

- 1) An ability to attend inappropriate behavior for no more than 1 time during a twenty-minute sample as measured by the standard data system.
- 2) An ability to talk (to an appropriate child) in at least 50% of the intervals sampled for twenty minutes as measured by the standard data system.

Consequently, we use the Toddler Management definition of mother attention in two ways:

- 1) If mother attends, by definition, to inappropriate behavior, score it.
- 2) If mother attends, by definition, to appropriate behavior, score it only if she does so by talking to the child. We are interested in mother's rate of talking, contingent on appropriate behavior, because many mothers do not do it enough.

In Toddler Management, mother attention is defined as:

- 1) Any verbal behavior of the parent to the child or to another person about the child or about his behavior, when in hearing distance of the child.
- 2) Any physical contact with the child which the parent initiates or participates in.

- 3) Eye contact and watching the child, if for five seconds or longer duration.

In preschool data this definition is applied to any attention the mother gives to a child who is behaving inappropriately. Score any defined attention to inappropriate behavior.

When the child is behaving appropriately, we are interested only in the mother's verbal attention to the child - talking to a child ... in a verbal manner.

If a mother talks to a child in any manner, indicate by making a check in the mother attention (Mo Attn) block. If the mother verbally attends to appropriate child behavior, also place a check in the box marked COOP (cooperative) or appropriate child behavior. If the mother attends (by the full definition) to inappropriate behavior, check also the block marked OPP (oppositional) or inappropriate child behavior. If she does not attend at all, leave the Mo Attn space blank. Follow the same procedure for the 30-40 second segment, and the 40-50 second segment. A thirty second sample of mother behavior will be made each minute for twenty minutes. Remember, we are rating the mother's behavior as she interacts with various children in the classroom.

Use the Toddler Management rating sheet (see attached rating sheet at the back of the section - Part II).

Each block represents one minute divided into six ten-second intervals. The data you are to take is recorded during the 20-30 second segment of each minute, the 30-40 second segment and the 40-50 second segment (i.e. three consecutive 10-second checks). Only the third, fourth and fifth intervals of each block will be used.

	0-10	10-20	20-30	30-40	40-50	50-60
COM						
COOP						
OPP						
MO ATTN						

Observe the mother from the 20-30 second mark. At the end of the ten seconds (when the second hand sweeps past the 30-second mark) place a check in the mother

attention block - 20-30 second segment) if at any time during the ten seconds the mother orally attends any behavior.

If during the same ten seconds a mother attends both appropriate and inappropriate behavior ("mixed interval"), make a check in both the oppositional and cooperative blocks. However, when counting the number of intervals of attention, the mixed interval is counted as an interval of attention to inappropriate behavior.

#### How to Compute % Rater Agreement

- 1) Enter the number of disagreements on the coop (appropriate) category.
- 2) Enter the number of disagreements on the opposition (inappropriate) category.
- 3) Enter the number of disagreements on the mother attention category.
- 4) Total the number of disagreements - subtract the total disagreements from 180.

$$\% \text{ Agreement} = \frac{(180 - \text{Total disagreements})}{180} \times 100$$

- 5) The % rater agreement must be recorded on the graph above the data point for that day.

#### What to Do With The Data

1) Count the number of the intervals in which the mother verbalized (attended) to appropriate behavior. We want mothers to talk to the children, giving attention to their behavior. If the number of intervals of mother (verbal) attention to appropriate behavior is at least 50% of the intervals sampled, the classroom teacher will enter the date in the appropriate block on the mother's objective sheet and on the wall chart indicating the mother has met that objective. For a twenty-minute sample that number should be 30 or more intervals of verbalizing to appropriate child behavior. If the number of verbalizations to appropriate behavior is less than 30 (or less than 50% of the intervals sampled) begin a graph. Continue with the graph until the mother reaches the criterion for talking.

2) Count the number of times the mother attends inappropriate behavior according to the full talking, touching, looking definition. If the number is 1 or less, the classroom teacher will enter the date in the appropriate block on the objective sheet and on the wall chart indicating the mother has met that objective. If the number of attentions to inappropriate behavior is more than 1, begin a graph. Continue with the graph until

the mother reaches the criterion for attending to inappropriate behavior no more than 1 time in twenty minutes.

### Directions for Graphing

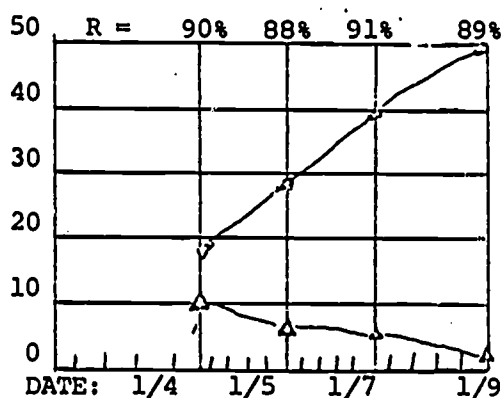
Enter the mother's name on the graph.

Enter the date. The points across the bottom indicate the days. Each 5th line means a day. Write in the date. If the mother is absent, do not skip points for the days she is absent. Do not skip points for Sunday or Saturday. Simply write the next date data was taken below the point to the right of the last date on the chart.

Enter the number of intervals the mother verbally attended to appropriate child behavior. The points up the left side of the graph indicate the number of intervals. Each line represents two units. Place a ( . ) dot at the intersecting point of the date and the number of intervals the mother verbally attended appropriate child behavior.

( . ) Number of intervals mother verbally attends appropriate child behavior.

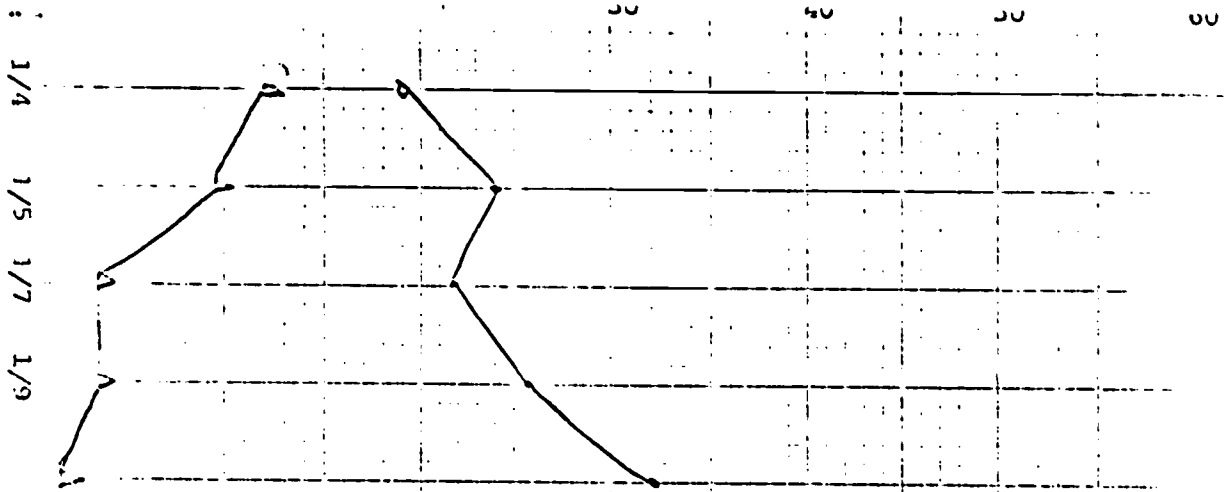
( Δ ) Number of times mother attends inappropriate behaviors:



Mother's Name :

Enter the number of times the mother attended to inappropriate child behavior. The points up the left also represent the number of times. Each line represents two units. Place a small triangle (Δ) at the intersection point of the date and the number of times the mother attends inappropriate child behavior during twenty minutes. (Example above) .

Enter the % rater agreement on the graph above each daily data point (R = \_\_\_\_ %).



SAMPLE OF A GRAPH

PROBE: MOTHER ATTENTION TO CHILDREN IN A GROUP SETTING

Check the correct answer:

When do you rate mother attention to children:

- ☐ All the time for twenty minutes
- ☐ During the 20-50 second intervals of each minute for twenty minutes instead of appropriate/inappropriate data.
- ☐ During the 20-50 second intervals of each minute for twenty minutes as you continue to rate appropriate/inappropriate data on the minute.

Score mother attention to appropriate behavior if she:

- ☐ verbally attends the behavior
- ☐ physically contacts the child
- ☐ watches the child for five seconds or longer

Score mother attention to inappropriate behavior is she:

- ☐ verbally attends the behavior
- ☐ physically contacts the child
- ☐ watches the child for five seconds or longer
- ☐ all of the above

Indicate the following on the sample data sheet:

During the 20-30 second interval of the first minute, the mother just stands by the child who is working a puzzle.

During the 30-40 second interval of the first minute, the child throws a puzzle piece and the mother says, "Jerry, don't throw things".

During the 40-50 second interval of the first minute, the child throws another piece and the mother looks at Jerry for 6 seconds.

During the 20-30 second segment of the second minute, the mother stands watching the children playing in the sand box and puts her hand on one of the children's shoulders.

During the 30-40 second segment of the second minute, the mother says, "Beth, you're playing so nicely."



CHILD \_\_\_\_\_ DATE \_\_\_\_\_ OBSERVER \_\_\_\_\_

TO TO

ADULT \_\_\_\_\_ SESSION NO. \_\_\_\_\_ CONDITION B DR-I REV DR-II F

COMMENTS: (Last minute or special instructions)

CHILD'S BEHAVIOR			
Total intervals of oppositional behavior	Rater #1	Rater #2	Mean
Above mean converted to %			
			Graph red dot
Above subtracted from 100	100 —		
			Graph blue dot

MOTHER'S BEHAVIOR			
Total intervals of attention to opposition	Rater #1	Rater #2	Mean
Above mean converted to %			
			Graph Black X

CHILD \_\_\_\_\_ DATE \_\_\_\_\_ SESSION NO. \_\_\_\_\_ OBSERVER \_\_\_\_\_

RATER RELIABILITY (for 20 Minutes)	
Disagreements	
Cooperation	
Opposition	
Mother Attention	
Total	
Subtract above from 360	360 —
Divide above by 3	3   _____
Above converted to %	

RATER RELIABILITY (for 10 Minutes)	
Disagreements	
Cooperation	
Opposition	
Mother Attention	
Total	
Subtract above from 180	180 —
Divide above by 1.5	1.5   _____
Above converted to %	

NAME OF DATA TABULATOR \_\_\_\_\_ 33 \_\_\_\_\_

CHILD \_\_\_\_\_ DATE \_\_\_\_\_ SESSION NO. \_\_\_\_\_ OBSERVER \_\_\_\_\_

Com

Coop

Opp

No  
Attn





Com

Coop

No  
Attn





Com

Coop

Opp

No  
Attn





COM

COOP

OPP

NO  
ATTN





COM

COOP

OPP

NO  
ATTN





### PART III

#### TIME ON TASK DATA

As in the case with "mother attention" data, "time on task" data is another type of data which you can record as you continue your rating on appropriate/inappropriate behavior.

A twenty minute sample of a child's behavior provides us with information on how long a child stays on task. The data will give us a baseline rate of the child's rate of activity change. If necessary, programs can be implemented to keep the child on task longer. Subsequent data, then, will show us whether our program of intervention does indeed increase his time on task.

These data, too, can be taken as you continue rating appropriate/inappropriate child behavior each minute on the minute. Time on task should be taken for twenty minutes during Activity Time in the classroom.

#### What to Do

Use the Toddler Management rating sheet (see attached rating sheet at the back of this section). Each block represents one minute divided into six ten-second intervals. The data you are to take is recorded during the 20-30 second segment of each minute, the 30-40 second segment, and the 40-50 second segment (i.e. three consecutive 10-second checks). Only the third, fourth and fifth intervals of each block will be used.

COM					
COOP					
OPP					
→			✓	///	
Mo Attn					

Observe the child from the 20-30 second mark. At the end of the ten seconds (when the second hand sweeps the 30 second mark, place a check in the block in the

unlabeled row, if at any time during the ten seconds the child changes activities. Remember, make a check at the end of the activity; that is, when the child "completes" an activity. Follow the same procedure for the 30-40 second segment and the 40-50 second segment of each minute for twenty minutes. If a child changes more than once during ten seconds, make a check each time he changes. Activity changes are defined as follows:

#### ACTIVITY CHANGES

A child is playing with one activity until he puts it away or leaves it.

If the toy is forcibly taken away from the child and then given back, this is not considered an activity change until the child actually leaves the toy or it is not returned.

A child is engaged with one activity if he is involved in a single dramatic role - mother or father, truck driver, play in kitchen, play in sand, etc. despite changes of equipment.

A child is changing activities if he is engaged in an activity and leaves the activity or begins playing with a peer's activity and is changing again if he returns to "his" activity. (If he leaves and is idle for five seconds or more, put a dash (-) in that ten second space. Do so for each ten seconds he is wandering.)

A child is idle (-) if he is just standing, sitting without a toy, walking or running around the room by himself, or not using his materials. Make a dash (-) in each interval the child is idle five seconds or more. Leave the interval blank if he is engaged in a planned programmed activity. If a child is being encouraged to play with a toy (or do art work) and is crying, he is not considered idle unless he actually rejects the toy by leaving it. This is inappropriate behavior and will be scored as such on an appropriate/inappropriate check.

Different changes of the same type of toy are counted as changes (example, from one puzzle to another).

If a child is carrying around an object with him (examples - a puppet, a car), this is counted as one activity until he puts that object down, if that object is incorporated within the activity. Wandering is not an activity and therefore no check is made when the child stops wandering and picks up a toy.

Sand play is counted as one activity even if the child changes toys within the sand box. If he leaves the sand box this is counted as a change unless he goes to get an object for the sand box (another toy or cup of water) and returns within ten seconds.

#### TEACHER ATTENTION

While marking activity changes you will, at the same time, note any teacher (or adult) attention given to that particular child during the three 10-second intervals of each minute you are marking the activity changes. Make a check in the row marked Mo Attn (mother attention) to indicate the teacher attention. Teacher attention is defined as the teacher verbalizing directly with the child, physically touching the child, or presenting the child with materials or food.

NOTE: If a teacher approaches two or more children and makes a generalized statement such as, "I like the way you are working," it is not recorded as attention because she did not specifically indicate a particular child.

### How to Compute % Rater Agreement

Count the number of disagreements  
Put that number over 120  
Divide 120 into the top number  
Convert to %  
Subtract from 100% to obtain % agreement

\_\_\_\_\_  
\_\_\_\_\_  
120

### What to do with the Data

- 1) Count the number of times the child changed activities (number of checks). Since we took one half minute of data for each minute for twenty minutes, we have a ten minute sample of the child behavior. Therefore, divide 10 by the number of activity changes to obtain the average time per task.
- 2) If the average number of minutes on task is more than three, enter the date of the activity check by that item on the objective sheet for that child and on the wall chart, and the average length of time on task on the child's objective sheet.
- 3) Calculate the % time wandering: Count the numbers of intervals wandering (number of ). Count the total number of intervals. Divide the intervals wandering by the total number of intervals. Convert to %. Enter the % on the child's objective sheet.
- 4) Calculate the % teacher attention: Count the number of checks in the mother attention row. Divide by the total number of intervals. Convert to %. Enter on the child's objective sheet.

### Directions for Graphing

Enter the child's name on the graph.

Enter the date. The points across the bottom indicate the days. Each 5th line means a day. Write in the date. If the child is absent, do not skip points for the days he is absent. Do not skip points for Saturday or Sunday, simply write the next date data was taken below the point to the right of the last date on the chart.

Indicate which classroom by the first date.

Enter the average number of minutes the child is on task. The points up the left side of the graph indicate the number of minutes. Each line represents one-half minute.



## OPPOSITIONAL TRAINING

CHILD \_\_\_\_\_ DATE \_\_\_\_\_ OBSERVER \_\_\_\_\_

TO TO

ADULT \_\_\_\_\_ SESSION NO. \_\_\_\_\_ CONDITION B DR-I REV DR-II F

COMMENTS: (Last minute or special instructions)

CHILD'S BEHAVIOR			
Total intervals of oppositional behavior	Rater #1	Rater #2	Mean
Above mean converted to %			
			Graph red dot
Above subtracted from 100	100 —		
			Graph blue dot

MOTHER'S BEHAVIOR			
Total intervals of attention to opposition	Rater #1	Rater #2	Mean
Above mean converted to %			
			Graph Black X

CHILD \_\_\_\_\_ DATE \_\_\_\_\_ SESSION NO. \_\_\_\_\_ OBSERVER \_\_\_\_\_

RATER RELIABILITY (for 20 Minutes)	
Disagreements	
Cooperation	
Opposition	
Mother Attention	
Total	
Subtract above from 360	360 —
Divide above by 3	3   _____
Above converted to %	

RATER RELIABILITY (for 10 Minutes)	
Disagreements	
Cooperation	
Opposition	
Mother Attention	
Total	
Subtract above from 180	180 —
Divide above by 1.5	1.5   _____
Above converted to %	

CHILD \_\_\_\_\_ DATE \_\_\_\_\_ SESSION NO. \_\_\_\_\_ OBSERVER \_\_\_\_\_

Com

Coop

Opp

No  
Attn





Com

Coop

Opp

No  
Attn





Com

Coop

Opp

No  
Attn





COM

COOP

OPP

NO  
ATTN





COM

COOP

OPP

NO  
ATTN





PART IV  
LANGUAGE SAMPLES

During story time continue to rate appropriate/inappropriate behavior each minute. During the remainder of each minute (20-50 second marks) take a sample of a child's verbal behaviors by writing down every verbalization the child imitates in one column, each word he is prompted to say in another column, and everything the child may say spontaneously in a third column.

These data will give us an indication of what the child says and how much the child talks as well as give us clues as to the areas in which he may need specific programs to develop toward age-appropriate verbalization.

Use the speech sample sheet for the speech samples.

## SPEECH SAMPLE CRITERIA

1. Write the child's name
2. Write the date
3. Write the time beginning
4. Write the time ending
5. Write the total time. Divide that time by two to get the sample time when you are taking a sample for only 30 seconds of each minute.
6. Write your name
7. Write % rater agreement

$$\frac{\text{SAMPLE TIME}}{2} = \underline{\hspace{2cm}}$$

Record in one column the words, phrases, sentences emitted spontaneously, (with no S<sup>D</sup>'s or prompts). - Those words which a child says with no cues as to what to say are spontaneous.

Record in another column those words, phrases, or sentences which a child is prompted to say. By prompted, we mean those things he says in reference to questions such as, "What do you see?" or "What is this?" or "What color is this?"

That is, all answers for which the child is given clues as to what to say are prompted.

Record in still another column the words imitated:

Those words which the child is specifically asked to imitate are recorded in the imitated column.

Those words which a child repeats within five seconds after another child or he repeats within five seconds after the teachers say them are recorded as imitated words.

In recording data, repetition of a word (for example, continuously saying "boy, boy, boy, boy") is counted as only one word. They are counted as more than one word if another word is said between them. If you cannot understand, write CU (can't understand).

Graph according to criteria on language sample for each child. This may vary from child to child. Record the % rater agreement above the daily data points (R = ).

### Directions for Graphing

Enter the child's name on the graph

Enter the child's birthdate on the graph.

Enter the date. The points across the bottom indicate the days. Each 5th line means a day. Write in the date. If the child is absent, do not skip points for the days he is absent. Do not skip dates for Saturday and Sunday. Simply write the next date data was taken below the point to the right of the last date on the chart.

Enter the preschool (Intake I, Language II, Community III, Toddler IV) before the first date. When the child changes preschools, draw a squiggle line and indicate the new preschool on the date the child enters the room.

Data will be figured on the basis of the number of verbalizations per minute -- whether words, phrases, or sentences -- prompted or spontaneous, etc. The resource person will make the decision as to what to graph after seeing the first speech sample.

Each 2nd dark line (every 10th space) up the left side of the graph will equal one word, phrase or sentence per minute.

Use X and  $\Delta$  to represent those items to be graphed. The resource person will indicate those items to be graphed.

You will always graph the frequency (number of words, phrases, sentences imitated, prompted or emitted spontaneously per minute). For instance, to do this, divide the number of minutes into the number of words spoken (or sentences, or phrases, or whatever is needed). This number will be the average number of words (or sentences, or phrases) spoken per minute. Enter this number on the intersection of the date and the appropriate number on the graph. Follow the same procedure for each item to be graphed.

EXAMPLE  
SPEECH SAMPLES

CHILD'S NAME John Smith # words imitated =  $\frac{10}{5} = 2$   
 DATE February 3, 1972 graph this part  
 TIME BEGIN 10:10 # words spontaneous =  $\frac{5}{5} = 1$  graph this part  
 TIME END 10:20 # words prompted =  $\frac{7}{5} = 1.4$   
 TOTAL TIME Ten Minutes graph this part  
 TOTAL TIME FOR SAMPLE (1/2 of 10) - 5 Min.  
 RATER Peggy Hester  
 % Rater Agreement 91%

IMITATED	PROMPTED	SPONTANEOUS
1. (A) 2. (Boy) 3. (A) 4. (Dog) 5. (That's a mouse) 6. 7. 8. (That's a baby) 9. 10.  10 words imitated	1. (A) 2. (Dog) 3. (Cat) 4. (meow) 5. (bowwow) 6. (feet) 7. (tail)  7 words prompted	1. (Dog) 2. (Cat) 3. (Dog) 4. (Mouse) CU (h) 5. (Baby) Baby Baby  5 words spontaneous (the last two baby's don't count because they are repeated without another word between them and CU's do not count as verbalizations, only vocalizations.)

5 Sample Time (number of minutes)

10 # words, phrases, sentences, (single and)



### How to Compute % Rater Agreement

Count the number of agreements \_\_\_\_\_

Count the number of disagreements \_\_\_\_\_

Total the agreements and disagreements - Add the above = Total

$$\% \text{ Agreement} = \frac{\text{Number of agreements}}{\text{Total}} \times 100$$

Record the % agreement on the data sheet above the daily data point.

- Words imitated
- Δ Words spontaneous
- X Words prompted

**John Smith**

## PROBE: LANGUAGE SAMPLES

Where is reliability recorded?

- ☐ on data sheet only  
☐ on child's graph sheet  
☐ on both data sheet and child's graph

When taking a language sample:

- ☐ record time sample is begun  
☐ record time sample is ended  
☐ record both time sample is begun and time sample is ended

If a child is asked, "How many flowers do you see?" And he replies, "I see two," his answer is:

- ☐ imitated  
☐ prompted  
☐ spontaneous

On the sample data sheet read the following conversations and indicate on it what words, phrases, and sentences John imitates, is prompted to say, and says spontaneously.

TEACHER: "John, what do you see?"

JOHN: "A cat."

TEACHER: "Say, I see a cat."

JOHN: "I see a cat."

TEACHER: "What does a cat say?"

JOHN: "Meow."

TEACHER: "Say, a cat says meow."

JOHN: "A cat says meow."

TEACHER: "What color is the cat?"

JOHN: "Cat is black."

TEACHER: "Do you have a cat?"

JOHN: "Two cats."

JOHN: "That kitty cat is drinking milk."

"Cat is black."

## SPEECH SAMPLES

CHILD'S NAME \_\_\_\_\_ DATE \_\_\_\_\_

TIME BEGIN \_\_\_\_\_ TIME END \_\_\_\_\_

TOTAL TIME \_\_\_\_\_

SAMPLE TIME \_\_\_\_\_  $\frac{\text{Total Time}}{2}$  \_\_\_\_\_

RATER \_\_\_\_\_ % Rater Agreement \_\_\_\_\_

IMITATED	PROMPTED	SPONTANEOUS

\_\_\_\_\_ Sample Time (number of minutes)

\_\_\_\_\_ Number words, phrases, sentences (circle one) imitated

\_\_\_\_\_ Number words, phrases, sentences (circle one) emitted spontaneously

\_\_\_\_\_ Number words, phrases, sentences (circle one) prompted

\_\_\_\_\_ Adjective/noun combinations

\_\_\_\_\_ Number of vocalizations

\_\_\_\_\_ Other

Teacher: That's a bird.

John T : Bird

Teacher moves on to another child.

John T : (something not understood)

Teacher: What did you say?

John T : Want cookie.

Later John gets another turn with the book.

Teacher: Now it's your turn to look at the book.

John T : Cow

6. Directions for computing rater reliability. Count the number of disagreements (raters may disagree as to verbal content and/or as to position under column).  $\frac{20 - \text{disagreements}}{20} \times 100 = \% \text{ agreement}$

This is the reliability point and will be entered on the child's speech sample sheet and on the graph above the daily data point.

7. Directions for graphing.

Enter the child's name on the graph.

Enter the child's preschool and birthdate in the lower left hand corner.

Enter the date. Each dark line represents a day on which a speech sample was taken. Write the date on the line below.

Enter the reliability point at the top of the line.

The Data Manager will make the decision as to what information will be graphed on each child's graph. Thereafter, the rater will graph the information requested on each graph.

PATIENT NAME

John T.  
Smith

DATE

6/15/72

PRESCHOOL

Language

& MATHS APPRECIATION

Dog

H

see

dog

see cat.

What's that?

bird

cu

want cookie

COW

PROBE: SPEECH SAMPLES

Where is reliability recorded:

- \_\_\_\_\_ on data sheet only
- \_\_\_\_\_ on child's graph sheet
- \_\_\_\_\_ on both the data sheet and child's graph

If a child is asked, "How many flowers do you see?" and he replies "I see two", his answer is:

- \_\_\_\_\_ imitated
- \_\_\_\_\_ prompted
- \_\_\_\_\_ spontaneous

On the sample data sheet read the following conversations and indicate on what words, phrases, and sentences Jane imitates, is prompted to say, and says spontaneously.

TEACHER: Jane, it's your turn to look at the book.

JANE: Airplane.

TEACHER: Say, I see the airplane.

JANE: I see

TEACHER: I see airplane.

JANE: See airplane.

TEACHER: Now, Jane, it's your turn to tell me what else you see.

JANE: Horsie.

TEACHER: What is the horsie doing?

JANE: (mumbles something, not understood)

TEACHER: What did you say?

JANE: Horsie eating grass.

TEACHER: Yes, the horse is eating.

JANE: Horsie eating grass.

TEACHER: What color is grass?

JANE: (mumbles something, not understood)

TEACHER: The grass is green.

JANE: Grass is green.

1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

SECRET

[illegible]

52-10000-10000

2018年12月15日

THESE RESEARCHES HAVE BEEN FINANCED BY THE INSTITUTIONAL INVESTMENT

1. 1990年12月，在《中国环境报》上，刊登了“中国环境状况令人堪忧”的文章，指出中国环境状况令人堪忧，并呼吁全社会关注环境问题。

*Journal of Management Studies*, 20(6), 791-806.

• *Journal of the American Medical Association*, 1990; 263: 1031-1034.



## APPENDIX LANGUAGE INTERACTION

One of the purposes of the Language Preschool is to increase language skills. We take two types of language interaction data. One, a sweep of the classroom as a whole, indicates how much verbalization is taking place. The second type records how often a particular child speaks to a teacher or to other children during a four-minute continuous sample.

For the language interaction sweep, use the inappropriate/appropriate rating sheet (see the sample attached). Fill in the date, your (rater's) name, the name of the classroom, and the title - Language Interaction.

List all of the children in the classroom. The sweep begins with the Rater #1 saying the first child's name and then saying "one, two, score". If the child verbalizes in any way other than crying, humming, or laughing, during the interval when the rater says, "one, two, score", a check is made in the appropriate block. If the child is not talking, make a dot in the appropriate block. The rater continues on down the entire list indicating verbalizations of any child with a check. Five such samples should be taken during activity time, and five more during group time. Wait several minutes between each sample in order to randomize the samples. (Use brackets to indicate when a child enters or leaves the room, the same as with appropriate/inappropriate data).

To calculate percent of rater agreement (reliability):

$$\frac{\text{Number of Disagreements}}{\text{Number of Possibilities}} \times 100 = \% \text{ disagreement}$$

Subtract from 100 to find the reliability point which will be entered on the data sheet and the graph.

Between samples of data taken in the sweep manner described above, language interaction data may be taken on an individual child. Use the Toddler Management data sheets on which to record this data. Several such samples can be taken on one sheet. On the sheet put your (rater's) name, the date, the name of the classroom, and the notation - language interaction. A child's name is entered by the blank row in each row of blocks with a notation as to the time the sample was begun. Then, using a clock or watch, the child is observed for four consecutive minutes. A check is made in the appropriate ten-second interval box each time the child talks to an adult or another child (peer). Note that if the child talks to himself or does not verbalize at all, only a dot is made to show that the interval was observed. There is usually time to take two sets of individual data during both activity time and group time.

Percent agreement between two raters is computed the same way as on the sweep data described above, that is:

$$\frac{\text{Number of Agreements}}{\text{Number of Possibilities}} \times 100 = \% \text{ rater agreement (reliability point)}$$

A separate reliability point will be figured on each child rated on the Toddler Management sheets. In graphing the data, we are looking in both cases, for the percent of intervals verbalizations occurred:

$$\frac{\text{Number of Checks}}{\text{Number of Possibilities}} \times 100 = \% \text{ intervals verbalization}$$

The data from the sweep graph are plotted on one graph, whereas the data on the individual child's verbalizations are plotted on a graph found in each child's folder. Both graphs are handled similarly:

- 1) Enter the child's name and the preschool number on the graph. Each line up the page equals two percentage points.
- 2) Enter the date along the bottom line. Each dark line represents a daily data point.
- 3) Plot the data points on the appropriate line and enter the reliability point at the top of the graph above the appropriate line (see sample). When two reliable raters are working together, the data point is based on the mean between their two totals.

## LANGUAGE INTERACTION PROBE

1. Which are the two types of language interaction data taken?

- ☐ sweep of all the children each day
- ☐ four minute individual data on all the children each day
- ☐ four minute individual data on four or five children each day

Language interaction data gives us sampling of:

- ☐ how often a child verbalizes to an adult
- ☐ how often a child verbalizes to another child
- ☐ how often a child talks to himself
- ☐ how often a child verbalizes to adults and/or peers

2. When recording data on the sweep, indicate each time each child on the list verbalizes in any way other than crying, humming, or laughing.

- ☐ each ten seconds
- ☐ each minute
- ☐ during the interval "one, two, score" for each child named

3. % rater agreement (reliability) is recorded:

- ☐ on the graph
- ☐ on the rating sheet
- ☐ on both the graph and the rating sheet

4. Figure the percentage of verbalizations in the data taken on the children in the sample provided.

5. Plot John T's data on the graph provided, filling in all the necessary information on the graph.

8/7/72

Smith

John T. . . . .  
9:45  
92%  
Reliable

Jane N. . . . .  
9:55  
98%  
Reliable

Joe S. . . . .  
11:05  
90%  
Reliable

CHILD \_\_\_\_\_

DATE 8/7/72

SESSION NO. \_\_\_\_\_

Language Interaction

OBSERVER Smith

Com

Coop

Opp

John T.  
9:45  
92%  
Reliable

.	.	✓	.	.	.

.	✓	✓	✓	.	.

.	.	.	.	✓	.

.	.	.	.	.	.

Com

Coop

Opp

Jane N.  
10:55  
98%  
Reliable

.	.	.	.	✓	✓

✓	✓	.	.	.	✓

.	✓	✓	.	.	.

.	.	✓	.	✓	✓

Com

Coop

Opp

Joe S.  
11:05  
90%  
Reliable

✓	✓	✓	.	.	.

.	.	.	.	.	.

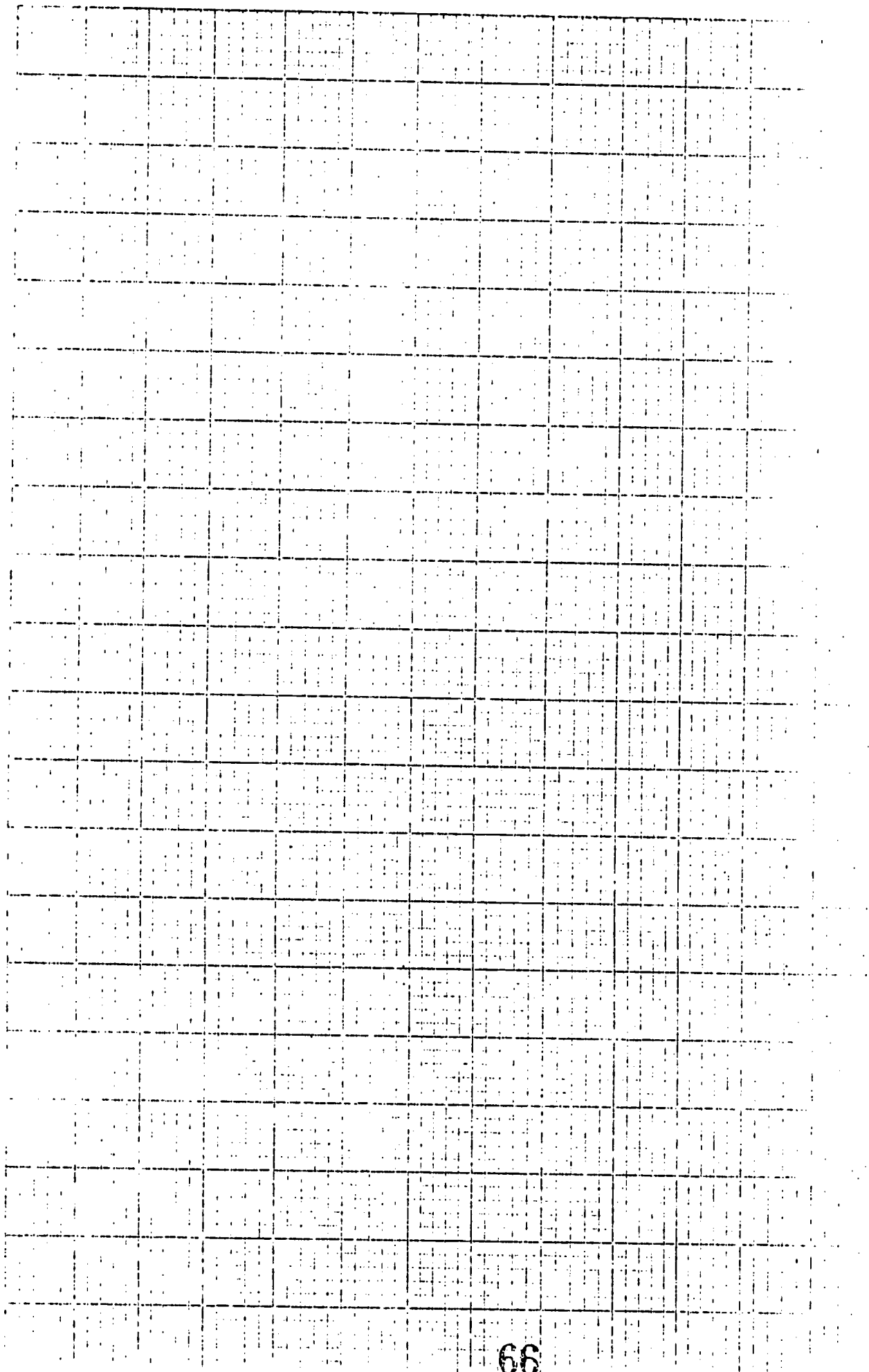
.	.	✓	✓	✓	✓

.	.	.	.	.	.

Language Interaction

Jack D	..	✓	..	✓	..	✓	..	✓	..
Tom T.	✓	..	..	✓	..	✓	..	✓	..
John N.	✓	..	..	✓	..	✓	..	✓	..
Joe S.	✓	..	✓	..	✓	..	✓	..	✓
Paul S.	✓	..	✓	..	✓	..	✓	..	✓
Peter M.	✓	..	✓	..	✓	..	✓	..	✓
Michael T.	✓	..	✓	..	✓	..	✓	..	✓
Mary S.	✓	..	✓	..	✓	..	✓	..	✓
Pattie B.	✓	..	✓	..	✓	..	✓	..	✓
Kathy C.	✓	✓	✓	✓	✓	✓	✓	✓	✓

$\frac{20}{94} = \text{Verbalization}$



## PART V

### PEER INTERACTION

A twenty minute sample of a child's behavior provides us with information on a child's interaction with his peers. The data will give us a baseline rate of the % time he plays cooperatively and parallel. If necessary, programs can be implemented to encourage a child to play with his peers rather than playing always by himself.

These data, too, can be taken as you continue rating appropriate/inappropriate child behavior each minute, on the minute. Peer interaction data should be taken for twenty minutes during Group Time, Outside Play, or Activity Time.

#### What to Do

Use the Toddler Management rating sheet (see attached rated sheet at the back of this section). Each block represents one minute divided into six ten-second intervals. The data you are to take is recorded during the 20-30 second segment of each minute, the 30-40 second segment, and the 40-50 second segment (i.e., three consecutive 10-second checks). Only the third, fourth and fifth intervals of each block will be used.

COM					
COOP					
OPP					
→					
Mo Attn					

Observe the child from the 20-30 second mark. At the end of the ten seconds, place the appropriate mark (listed below) in the column.

P represents proximity to another child. That is, for at least five seconds the child is:

1. within three feet of another child
2. on a tricycle and within six feet of another child on a tricycle



3. The following pieces of equipment or activity areas are assumed to give proximity:

- a) swings
- b) slide
- c) rocky boat
- d) sandbox
- e) chairs at a table

4. Touching another child is counted as proximity.

NOTE: Proximity must last five seconds or longer in order to count as parallel play.

- ⒫ represents aggressive touching (hitting, fighting)  
C represents cooperative play

Children are engaged in a "shared play" activity (cooperative play), in which reinforcement is derived from the mutual use of materials or from the presence of the other child. The following are examples of cooperative play:

1. An activity involving a common object, with "object" defined as:

- a) any moveable item (single toy, rope) or items (two children are adding blocks to the same structure; taking beads from same box).
- b) a particular part of a nonmoveable item which is the direct object of play for both children (digging or filling in the same hole; children jumping on board together; children washing in the same basin or bucket; more than one child sharing a car garage or train track).

2. An activity involving an exchange of objects (children throwing pine cones or leaves at each other; one child handing another a rolling pin).

3. A cooperative activity (children teetering; one child pulling another in a wagon).

4. A "unified" or "organized" activity involving imitative movements or gestures or common verbalizations (children crawling around on ground, roaring like lions) - a "game"; a parade.

5. A shared-play activity identified as such through verbal approach and response between children, (one child saying, "Let's build a house." the other answering, "o.k."; or "Let's build a house." and the other child starts building).

6. A sustained physical encounter. (wrestling, one child hits another who in turn hits back).

IN SCORING "C" HAS PRIORITY OVER "P" if both occur during the 10-second interval.

If a child is not doing one of the above, P P C, leave the space blank.

This indicates the child is by himself.

Follow the same procedure for the 30-40 second segment and the 40-50 second segment of each minute for twenty minutes. A child must be in proximity or cooperative play for at least five seconds before it is scored.

#### How to Compute % Rater Agreement

Count the number of disagreements

Put that number over 60

Divide 60 into the top number

60

Convert to %. This gives % rater disagreement.

Subtract % disagreement from 100. This gives the % rater agreement.

Enter this % agreement on the data sheet and on the graph above the child's daily data point.

#### What to do with the Data

1. Count the number of intervals in which the child was in proximity (number of P's.

Ⓟ's are counted as P. The resource person will indicate when a separate graph is needed to chart Ⓟ's).

2. Count the number of intervals in which the child was playing cooperatively - (number of C's).

3. Count the number of blanks during the intervals sampled.

4. Count the total of intervals sampled. For a 20-minute sample that number will be 60.

5. Find the: % time child plays in proximity to peers  
by dividing 60 into the number of P's

% time child plays cooperatively with peers  
by dividing 60 into the number of C's

% time child plays by self  
by dividing 60 into the number of blanks  
(number of intervals child was by self)

Directions for Graphing

Enter the child's name on the graph.

Enter the date.

The points across the bottom indicate the days. Each 5th line means a day.

If the child is absent, do not skip points for the days he is absent. Do not skip points for Saturday or Sunday. Simply write the next date data was taken below the point to the right of the last date on the chart.

Indicate which classroom by the first date.

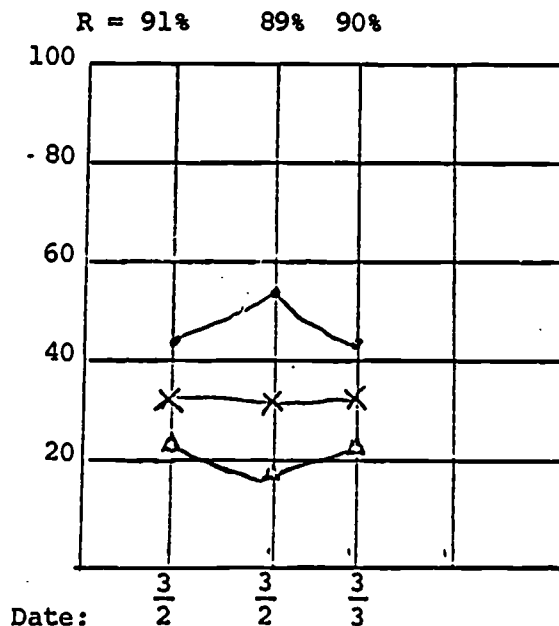
Enter the % time the child plays in proximity (•). The points up the left side of the graph indicate this %. Each line represents 2%.

Enter the % time the child plays cooperatively (Δ).

Enter the % time the child plays by self (X).

Enter the % rater agreement above the daily data points.

Example:



45% play in proximity  
25% cooperative play  
35% play by self  
on March 3, 1972

NAME: \_\_\_\_\_

Preschool: I

PROBE: PEER INTERACTION

Check the correct answers:

Peer interaction data is taken:

\_\_\_\_\_ during the 20-50 second segment as you  
\_\_\_\_\_ continue to take appropriate/inappro-  
\_\_\_\_\_ priate data each minute-on the minute  
\_\_\_\_\_ instead of appropriate/inappropriate  
\_\_\_\_\_ data

% rater agreement is recorded

\_\_\_\_\_ on the data sheet  
\_\_\_\_\_ on the data sheet and the child's graph  
\_\_\_\_\_ above the daily data point.  
\_\_\_\_\_ on the graph only

Touching another child is recorded as:

\_\_\_\_\_ proximity play  
\_\_\_\_\_ cooperative play

Score aggressive hitting by:

\_\_\_\_\_ P  
\_\_\_\_\_ (P)  
\_\_\_\_\_ C

On the sample data sheet indicate the following:

During the 20-30 second interval of the first minute, John is looking at another child but is at least four feet away.

During the 30-40 second interval of the first minute, John touches the child and shows him the book he is holding.

During the 40-50 second interval of the first minute, John and the other child look at the book side by side, one turning one page, the other turning the next.

During the 20-30 second interval of the second minute, John is rocking in boat with two other children.

During the 30-40 second interval of the second minute, John hits one of the other children and leaves after six seconds.

During the 40-50 second interval of the second minute, John is standing by self.

## PEER INTERACTION APPENDIX

### What To Do

There are two types of peer interaction data. One is a sweep of the entire classroom, indicating how much child interaction is occurring at five minute intervals. The second records how often a particular child interacts with other children and the type of interaction during a continuous four-minute sample.

For the peer interaction sweep, use the appropriate/inappropriate rating sheet (see the sample attached). Fill in the date, your (rater) name, the name of the classroom, and the title - Peer Interaction.

List all of the children in the classroom. The sweep begins with the Rater #1 saying the first child's name and then saying "one, two, score". If the child is playing cooperatively, mark a "c" in the appropriate block by the child's name.

Cooperative play refers to those activities in which the child:

- 1) shares objects with peers
- 2) verbally communicates as he shares objects
- 3) takes on a make-believe role with other children
- 4) verbally communicates while pretending

The rater continues on down the entire list indicating each child's interaction with a "c". From five to ten samples should be taken during play time. Use brackets to indicate when a child enters or leaves the room, (see appropriate/inappropriate data).

To calculate percent of rater agreement (reliability):

$$\frac{\text{Number of Disagreements}}{\text{Number of Possibilities}} \times 100 = \% \text{ disagreement}$$

Subtract from 100 to find the reliability point which will be entered on the data sheet and on the graph.

Between samples of data taken in the sweep manner described above, peer interaction data may be taken on an individual child. Use the Toddler Management data sheets to record this data. On the sheet, put your name (rater name), the date, the name of the classroom and the notation, "peer interaction." The child's name is entered by the black row in each row of blocks with a notation as to the time the sample was begun. Then, using a clock or watch, the child is observed for four consecutive minutes. A P is made in the appropriate ten-second interval box for each interval in which the child is in proximity (within three feet of another child) and a C for cooperative play with a peer (as defined above).

Percent agreement between two raters is computed the same as on the sweep data described above. That is:

$$\frac{\text{Number of agreements}}{\text{Number of Possibilities}} \times 100 = \% \text{ rater agreement (reliability point)}$$

A separate reliability point will be figured on each child rated on the Toddler Management sheets. Graph the data for the percent of intervals of parallel and the percent intervals of cooperative play.

$$\% \text{ Proximity Play} = \frac{\text{Number of P's}}{\text{Number of Possibilities}} \times 100$$

$$\% \text{ Cooperative Play} = \frac{\text{Number of C's}}{\text{Number of Possibilities}}$$

The data on cooperative play from the sweep are plotted on one graph; where as, the data on the individual child's peer interactions are plotted on a graph found in each child's folder. Both graphs are handled similarly:

- 1) enter the child's name and the preschool number on the graph. Each line up the page equals two percentage points
- 2) enter the date along the bottom line. Each dark line represents a daily data point

- 3) plot the data points on the appropriate line and enter the reliability point at the top of the graph above the appropriate line. If there are two raters, the data point is the mean of the two totals.

In some cases, the cooperative play category will be broken down to distinguish the level of cooperative play of the child.

- C<sub>1</sub> Sharing objects with peers
- C<sub>2</sub> Verbally communicating as he shares objects
- C<sub>3</sub> Taking on a make-believe role with other children
- C<sub>4</sub> Verbally communicating while pretending

This type data will allow us to focus on the child's level of play and will enable us to plan a specific program for the next level.

## OPPOSITIONAL TRAINING

CHILD \_\_\_\_\_ DATE \_\_\_\_\_ OBSERVER \_\_\_\_\_

TO TO

ADULT \_\_\_\_\_ SESSION NO. \_\_\_\_\_ CONDITION B DR-I REV DR-II F

COMMENTS: (Last minute or special instructions)

CHILD'S BEHAVIOR			
Total intervals of oppositional behavior	Rater #1	Rater #2	Mean
Above mean converted to %			
			Graph red dot
Above subtracted from 100	100 =		
			Graph blue dot

MOTHER'S BEHAVIOR			
Total intervals of attention to opposition	Rater #1	Rater #2	Mean
Above mean converted to %			
			Graph Black X



CHILD \_\_\_\_\_ DATE \_\_\_\_\_ SESSION NO. \_\_\_\_\_ OBSERVER \_\_\_\_\_

RATER RELIABILITY (for 20 Minutes)	
Disagreements	
Cooperation	
Opposition	
Mother Attention	
Total	
Subtract above from 360	<div style="text-align: right;">360</div> <div style="text-align: right;">—</div>
Divide above by 3	<div style="text-align: right;">3   _____</div>
Above converted to %	

RATER RELIABILITY (for 10 Minutes)	
Disagreements	
Cooperation	
Opposition	
Mother Attention	
Total	
Subtract above from 180	<div style="text-align: right;">180</div> <div style="text-align: right;">—</div>
Divide above by 1.5	<div style="text-align: right;">1.5   _____</div>
Above converted to %	

CHILD \_\_\_\_\_ DATE \_\_\_\_\_ SESSION NO. \_\_\_\_\_ OBSERVER \_\_\_\_\_

Con

Coop

Opp

No  
Actn





Con

Coop

No  
Actn





Con

Coop

Opp

No  
Actn





COM

COOP

OPP

NO  
ATTN





COM

COOP

OPP

NO  
ATTN



